

Serial No. 09/637,654
Group Art Unit: 1638

Amendments to the Claims:

1. (Cancelled)
2. (Previously Presented) A recombinant expression cassette comprising the polynucleotide of claim 12 operably linked to a promoter.
3. (Currently Amended) A host cell comprising the ~~recombinant expression cassette~~ polynucleotide of claim 2 12.
4. (Currently Amended) A transgenic plant comprising the ~~recombinant expression cassette~~ polynucleotide of claim 2 12.
5. (Original) The transgenic plant of claim 4, wherein said plant is a monocot.
6. (Original) The transgenic plant of claim 4, wherein said plant is a dicot.
7. (Previously Presented) The transgenic plant of claim 4, wherein said plant is selected from the group consisting of maize, soybean, sunflower, sorghum, canola, wheat, alfalfa, cotton, rice, barley, and millet.
8. (Currently Amended) A transgenic seed from the transgenic plant of claim 4, wherein the seed comprises the ~~recombinant expression cassette~~ polynucleotide.
9. (Currently Amended) A method of modulating the level of RAD51C in a plant, comprising:

Serial No. 09/537,654
Group Art Unit: 1638

- (a) introducing into a plant cell a recombinant expression cassette comprising the polynucleotide of claim 12 25 operably linked to a promoter;
- (b) culturing the plant cell under plant cell growing conditions;
- (c) regenerating a whole plant which possesses the transformed genotype; and
- (d) expressing said polynucleotide for a time sufficient to modulate the level of RAD51C in said plant.

10. (Previously Presented) The method of claim 9, wherein the plant is selected from the group consisting of maize, soybean, sunflower, sorghum, canola, wheat, alfalfa, cotton, rice, barley, and millet.

11. (Cancelled)

12. (Currently amended) An isolated polynucleotide selected from the group consisting of:

- (a) ~~a the nucleic acid sequence having at least 90% sequence identity over the entire length of SEQ ID NO: 1, as determined by the GAP program under default parameters, wherein said sequence encodes a polypeptide involved in DNA double strand break repair;~~ and
- (b) a nucleic acid sequence which is fully complementary to the nucleic acid sequence of (a).

13-24. (Cancelled)

25. (Currently Amended) An isolated polynucleotide comprising a member selected from the group consisting of:

Serial No. 09/637,654
Group Art Unit: 1638

- (a) a nucleic acid sequence encoding a polypeptide having at least 90% sequence identity over the entire length of SEQ ID NO: 2, as determined by the GAP algorithm under default parameters, wherein the encoded polypeptide involved in DNA double strand break repair; and
- (b) a nucleic acid sequence which is fully complementary to the nucleic acid sequence of (a).

26-27. (Cancelled)

- 28. (Previously Presented) A recombinant expression cassette comprising the polynucleotide of claim 25 operably linked to a promoter.
- 29. (Currently Amended) A host cell comprising the ~~recombinant expression cassette~~ polynucleotide of claim 28 25.
- 30. (Currently Amended) A transgenic plant comprising the ~~recombinant expression cassette~~ polynucleotide of claim 28 25.
- 31. (Previously Presented) The transgenic plant of claim 30, wherein said plant is a monocot.
- 32. (Previously Presented) The transgenic plant of claim 30, wherein said plant is a dicot.
- 33. (Previously Presented) The transgenic plant of claim 30, wherein said plant is selected from the group consisting of maize, soybean, sunflower, sorghum, canola, wheat, alfalfa, cotton, rice, barley, and millet.

Serial No. 09/537,654
Group Art Unit: 1638

34. (Currently Amended) A transgenic seed from the plant of claim 30, wherein the seed comprises the recombinant expression cassette polynucleotide.
35. (Cancelled)